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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,201	04/12/2001	Daniel Klein	SAN528/99071A	4671

7590 05/06/2003  
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Tulsa, OK 74119

EXAMINER

BHAT, NINA NMN

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

53

<b>Office Action Summary</b>	<b>Applicati n No.</b> 09/834,201	<b>Applicant(s)</b> KLEIN ET AL.	
	<b>Examiner</b> N. Bhat	<b>Art Unit</b> 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____ |
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### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rieger in combination with Traelnes further in view of Papikian.

Rieger teaches the invention substantially as claimed. Rieger teaches a horizontally disposed container for processing and fermentation wine grape must. The container is a tank, which ferments wine and the wine cap in a tank having cylindrical walls, and axis and a bottom; the wine and cap are moved radially and axially by rotating an impeller having an axial shaft, which assist axial flow. Specifically the tank is equipped with a slowly rotating agitator having a plurality of longitudinally spaced blade disposed the full length of its shaft. Rieger teaches that the tank can be of different cross sectional shapes, it can be rectangular or circular cylindrical in its cross section in its upper half and the upper portion of the lower half maybe circular cylindrical cross-

section immediately adjacently followed by a discharge drain or funnel shaped cross-section. The auger may also be positioned in the fluid drain or trough shaped drain.

The mixing blades or impellers are provided along the entire shaft. The design of the paddles and orientation along the agitator shaft is to move the cap back through the vessel. The pomace cap accumulating on the surface of the juice is broken up into individual pieces by the blades and punched down into the juice by the specific design and orientation of the blades along the agitating shaft. [Note column 2, lines 7-55]

Rieger further teaches that the wide bodied mixing blades can be increase in length in which the agitator shat of centrally disposed in the circular tank, in this way the mixing blades reach up to close to the inner wall and the blade ends are provided with stripping or scraping means made of plastic or rubber mater which is in engagement with the inner wall surface to carpe oft any skins, pulp, stems etc. Rieger specifcally teaches that if the agitator is intended to break up the pomace cap floating on top of the juice and punch it back down into the body of the juice the agitator operates at a very low speed, the agitator diameter being between 1-5 meters. Rieger also teaches that if the during extraction of the juice of the wine is being performed, the agitator is designed and operator so that it prevents the buildup of the pomace on the wall sections of the tank and will convey the pomace into the discharge screw and the agitator is operated at a higher speed than if only breaking the cap. [Note column 3, lines 3-60 and Column 6, lines 40-50]

However, Rieger does not teach using baffles, which are attached to the wall of the vessel to promote mixing.

Traelnes teaches an agitation device for fermentation vessels which includes at least one rotatable disc having a serrated edge, and axial impeller concentric with the disc and at least one baffle which includes longitudinal plates arranged radially with respect to the axis of rotation of the disc and extend from the wall of the vessel to the disc periphery. The baffles are perforated to induce turbulence as the liquid passes through the holes, the baffles and the agitation device cooperates with the baffles disposed in the vessel to promote mixing, turbulence and aid in fermenting and removal of wine, skins, seeds and stems from the tank.

With respect to applicant's claims wherein yeast and sugar is added to the wine to promote fermentation, it is well known that in wine making a starter or yeast or culture is required in order to control fermentation. The addition of sugar is well known in order to activate the yeast inherent in the operation of the fermentor taught by both Reiger and Traelnes that a yeast culture or active culture would be added to the fermentor, but since this is not specifically taught, Papikian is provided as an evidentiary document to show that in the operation of a fermentation tank in the production of wine, the tank is filled with about 80% capacity of red grape must, active yeast starter is added, the mixture of the must and starter is mixed by use of a plunger (3) in Figure 1 of Papikian, or by rotation of an impeller [Note Figure 3 Papikian] and is left to ferment. [Note Page 1, 5<sup>th</sup> Paragraph; Page 3, 1<sup>st</sup> full paragraph(Steps 1-12); Figure 1, 3 and 4]

It would have been obvious to one having ordinary skill in the art at the time the invention was made from the combined teachings of Reiger in combination with Traelnes to provide a provides for wine cap management for fermenting wine and skin,

Art Unit: 1761

seeds and steps which forms a cap wherein the fermenting of the wine and cape takes places in a cylindrically tank fermentor which has an axis and a bottom, and provided with means to move the wine and cap radially and axially by periodically rotating an impeller having an axial shaft within the cylindrical tank and assisting axial flow of the wine, Rieger uses a rotary shaft with impellers of specific design which punches the cap back down into the juices during fermentation as well as provides impeller blades which can scrape the walls of the fermentor tank and further can be designed of different cross-sections along the shaft length which can aid pomace removal after fermentation. Rieger does not use baffles disposed on the sidewalls of the vessel to promote mixing, agitation and turbulence. The design and orientation of the impeller blades are designed to function as the baffles on the sidewalls of the fermentor would perform, and Rieger does not have the need for having baffles. However, there is nothing in Rieger which would preclude using a fermentor or vessel wherein baffles are provided since Rieger teaches any type of vessel can be used with his invention, the design of the impeller blades would be changed according to the cross-section of the tank being used in the fermentation. Traelnes teaches using baffles in fermentors for promoting mixing, turbulence and to aid in fermentation of the wine during mixing, applicant's specific steps of adding a yeast and sugar and the steps in making a red wine from grape must is fully taught by Papikian thus rendering applicant's invention as a whole obvious to one having ordinary skill in the art absent criticality in showing.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maarleveld teaches a wine fermentation tank, Calvin teaches a

Art Unit: 1761

process for making a low alcohol wine. Zepponi teaches a wine grape processing apparatus. Fricker et al. teach a process and apparatus for making sherry. Straffi EP0246202 teaches a fermentation tank for making wine and sparkling wine.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 703-308-3879. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 703-308-3959. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5665.



N. Bhat  
Primary Examiner  
Art Unit 1761

May 5, 2003